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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,030	08/21/2003	Bruce Clark	P-1549-021	1553
7590	12/03/2004		EXAMINER	
Floyd E. Ivey Liebler, Ivey, Connor & Berry P.O. Box 6125 Kennewick, WA 99336			DEPUMPO, DANIEL G	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/647,030	CLARK, BRUCE
	Examiner	Art Unit
	Daniel G. DePumpo	3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 October 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
 - 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/21/03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

1. Applicant's election with traverse of species I (yaw assembly, fig. 5), species iii (hydraulic motor), and species a (the drive means of a shaft/key/notch) in the reply filed on 10/4/02 is acknowledged.

Applicant has indicated which claims applicant considers to read on the various species that are elected. It is noted, however, that there are no claims common to all the elected species. Moreover, the examiner does not agree with applicant's determination of which claims read on the various elected species. The examiner's determination of which claims read on the elected species is set forth below. Also, as set forth below, some of the species requirements have been withdrawn in view of applicant's remarks.

The traversal directed to the yaw assembly is on the ground(s) that the sole distinction between the species of fig. 5 and fig. 6, is that the species of fig 5 includes a single set of yaw assembly plates, and the species of fig. 6 includes two sets of plates. This is not found persuasive because applicant has not provided a clear admission that these species are obvious variants of each other. Moreover, it is noted that the species of fig. 6 includes gear means 430. This feature is also not present in the elected species of fig. 5. Applicant has indicated that only claims 1-4 read on the species of fig. 5. The examiner considers that claims 1-6 actually read on the elected species of fig. 5. Clearly, claims 7-10 do not read on the elected species because claim 7 recites a "top assembly plate" (i.e. 211), which is a feature of non-elected fig. 6. Claims 7-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

Regarding the requirement for election of species of the yaw interconnection means, this issue is moot in view of applicant's election of the species of fig. 5.

Regarding the requirement for the election of species of the motor means, this requirement has been withdrawn in view of applicant's admission that the selection of motor means is an "obvious design consideration" (applicant's remarks, page 15).

Regarding the requirement of election of species of the drive means, this requirement is moot in view of applicant's election of the species of fig. 5, which contains the shaft/key/notch. Moreover, at page 15 (remarks), applicant states that the various drive means are "design considerations". Apparently applicant is admitting that the various drive means are obvious design considerations, however this is unclear because applicant did not use the word "obvious".

In summary, claims 1-6 are examined below, and claims 7-10 are withdrawn from further consideration.

The requirement is still deemed proper and is therefore made FINAL.

2. The drawings were received on 10/4/04. These drawings are not approved because it is unclear what changes have been made, and they do not overcome the objection set forth below.
3. The drawings are objected to under 37 CFR 1.84(h)(5) because Figure 6 show(s) modified forms of construction in the same view. This figure shows modified forms of the drive means because it shows both the gear means 430, and the key/notch 420/425. These structures are mutually exclusive drive means. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where

necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The lengthy claims are replete with indefiniteness. Some examples are listed below.

Applicant should review the claims for further indefiniteness and correct the same.

Throughout the claims, the word "means" is used excessively. It is unclear whether applicant intends for these to be "means plus function" type recitations. Generally, the word "means" is preceded by a word in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Throughout the claims, the phrase "means of" is vague and indefinite.

The claims are replete with double positive recitations of various elements. Some examples are: Claim 3, line 27 (yaw interconnection means); claim 4, line 2 (edge affixing means); claim 4, line 4 (yaw interconnection means); claim 4, line 14 (shaft interrelated with gear interconnecting means); claim 4, line 14 (yaw power means); claim 5, line 2 (rotatable yaw power means); claim 6, line 2 (motor means); claim 6, line 9 (first roll interconnecting means).

In claim 5, line 6, the recitation that “ the motor means is affixed to the at least one first yaw assembly plate (210) the motor shaft (410)” does not make sense.

Again, it is noted that these are only some examples of indefiniteness. Applicant should review the claims and correct all instances of indefiniteness.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Fromberg.

Fromberg teaches an assembly having the structure as claimed. The device includes a pitch assembly (21, etc.), a yaw assembly (29, etc.) and a roll assembly (64, etc.). The various assemblies include elements that comprise plates to the same degree as claimed. Regarding the recitation of a “shaft … receiving yaw power means” (claim 4), the forces on the Fromberg device, which cause articulation about shaft 29, are considered to comprise “yaw power means” as broadly claimed. Since Fromberg teaches the structure as claimed, the device will inherently function as claimed.

8. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Dion.

Dion teaches an assembly having the structure as claimed. The device includes a pitch assembly (59, etc.), a yaw assembly (46, etc.), a roll assembly (48/50, etc.) and yaw power means 76. The various assemblies include elements that comprise plates to the same degree as claimed. Since Dion teaches the structure as claimed, the device will inherently function as claimed.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dion in view of Hyler.

As set forth above, Dion teaches substantially all that is claimed, but does not teach motor means fixed to a yaw assembly plate. Hyler, however teaches a similar device including motor means (60, etc.) which is secured to a yaw assembly plate. It would have been obvious to modify Dion, by replacing the power means 76 with the motor means taught by Hyler, to provide a compact arrangement with increased range of movement.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Dion and Hyler as applied to claim 5 above, and further in view of Baillargeon.

As set forth above, the combination of Dion and Hyler teaches substantially all that is claimed, but does not teach that the roll assembly includes complementary threaded means. However, Baillargeon teaches a similar device including a roll assembly having complementary

threaded means 171/179. It would have been obvious to modify the combination by using such means in the roll assembly to allow for easy assembly, disassembly and repair.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Helms, Zajfert, Hutt, Moores, Rockwell and Tourneau disclose various devices having features in common with the instant invention.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel G. DePumpo whose telephone number is 703 308-1113. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 703 308 1113. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel G. DePumpo
Primary Examiner
Art Unit 3611

dgd
11/23/04